# **Glossary**

Abiotic—nonliving; not derived from living organisms; inorganic

**Acid rain**—rain or other precipitation containing a high amount of acidity

**Adaptation**—a behavior or trait that increases a species chance of survival in a specific environment; the process of adapting

**Anaerobic**—occurring or living in the absence of oxygen

**Angler**—fisherman, especially one fishing for pleasure using a hook and line

Aquatic ecosystem—an ecosystem organized around a body of water

Aquatic organism—any living thing that is part of an aquatic ecosystem

**Aquatic resource**—water and all things that live in or around water

Aquifer—an underground layer of sand, gravel, or rock that hold water in pores or crevices

Atmosphere—the gaseous envelope surrounding the earth; the air

**Biodiversity**—the number and variety of living things in an environment

Biosphere—the part of the world in which life can exist; living organisms and their environment

**Biotic**—of or having to do with life or living organisms; organic

**Buffer**—to serve as a protective barrier to reduce or absorb the impact of other influences; something that buffers

**Carrying capacity**—an ecosystem's resource limit; the maximum number of individuals in a population that the ecosystem can support

**Channel**—the part of the stream where water collects to flow downstream, including the streambed, gravel bars and stream banks

**Clean Water Act**—primary federal law in the United States governing water pollution, first passed by Congress in 1972

**Collector**—an aquatic invertebrate that feeds on fine material; examples include caddis fly larvae and mayfly nymphs

**Community**—a group of plants and animals living and interacting with one another in a particular place

**Compete**—the act of actively seeking after and using an environmental resource (such as food) in limited supply by two or more plants or animals or kinds of plants or animals

Condense—to change a gas or vapor to liquid

**Conservation**—the wise use of natural resources such that their use is sustainable long term; includes protection, preservation, management, restoration and harvest of natural resources; prevents exploitation, pollution, destruction, neglect and waste of natural resources

**Consumer**—an organism that feeds on other organisms in a food chain

**Current**—the part of a body of water continuously moving in a certain direction

**Decompose**—to decay or rot; to break down or separate into smaller or simpler components

**Decomposer**—an organism such as a bacterium or fungus that feeds on and breaks down dead plant or animal matter, making essential components available to plants and other organisms in the ecosystem

**Detritus**—loose material that results from natural breakdown; material in the early stages of decay

**Dissolved oxygen**—oxygen gas absorbed by and mixed into water

**Ecosystem**—a community of organisms together with their physical environment and the relationships between them

**Energy pyramid**—a graphical representation designed to show the relationship between energy and trophic levels of a given ecosystem

**Erosion**—the gradual wearing away of land surface materials, especially rocks, sediments, and soils, by the action of water, wind, or ice; usually includes the movement of such materials from their original location

Ethical—following the rules of good conduct governing behavior of an individual or group

**Evaporation**—to change from a liquid state into vapor

**Filter feeder**—an aquatic animal, such as a mussel or some species of fish, that feeds by filtering tiny organisms or fine particles of organic matter from water that passes through it

Fin—a wing- or paddle-like part of a fish used for propelling, steering, or balancing in the water

First-order stream—a small stream with no tributaries coming into it

**Floodplain**—the flat land on both sides of a stream, into which the stream's extra water spreads during a flood

**Food chain**—a series of plants and animals linked by their feeding relationships and showing the transfer of food energy from one organism to another

Food web—many interconnected food chains within an ecological community

Geosphere—the solid part of the earth consisting of the crust and outer mantle

**Gill**—a respiratory organ that enables aquatic animals to take oxygen from water and to excrete carbon dioxide

**Grazer**—an aquatic invertebrate such as a snail or water penny that eats aquatic plants, especially algae growing on surfaces

**Groundwater**—water that flows or collects beneath the earth's surface in saturated soil or aquifers

**Habitat**—the natural environment in which an organism normally lives, including the surroundings and other physical conditions needed to sustain it

**Headwaters**—the high ground where precipitation first collects and flows downhill in tiny trickles too small to create a permanent channel

Hydrosphere—all of the Earth's water, including surface water, groundwater and water vapor

**Inorganic**—composed of matter that does not come from plants or animals either dead or alive; abiotic

Intermittent stream—a stream that flows, dries up and flows again at different times of the year

**Invasive species**—a species that has been introduced by human action to a location where it did not previously occur naturally, has become capable of establishing a breeding population in the new location without further intervention by humans and has spread widely throughout the new location

Invertebrate—any animal without a spinal column; for example, insects, worms, mollusks and crustaceans

**Lake**—a large body of standing water

**Lateral line**—an organ running lengthwise down the sides of fish, used for detecting vibrations and pressure changes

**Marsh**—a wetland dominated by reeds and other grass-like plants

**Natural selection**—the natural process in which those organisms best adapted to the conditions under which they live survive and poorly adapted forms are eliminated

**Natural resource**—something that is found in nature that is useful to humans

**Niche**—the function, position or role of a species within an ecosystem

**Non-point pollution**—water pollution that comes from a combination of many sources rather than a single outlet

**Organic**—composed of matter that comes from plants or animals either dead or alive; biotic

Oxbow lake—crescent-shaped lake formed when a bend of a stream is cut off from the main channel

**Perennial stream**—a stream that flows for most or all of the year

**Physiographic**—pertaining to physical geography; relating to the surface features of terrain

**Plankton**—microscopic free-floating plant- or animal-like organisms

**Point-source pollution**—water pollution that comes from a single source or outlet

**Pollution**—the contamination of air, water, or soil by substances that are harmful to living organisms, especially environmental contamination with man-made waste; also the harmful substances themselves

**Pond**—a body of standing water small enough that sunlight can reach the bottom across the entire diameter

**Pond succession**—the natural process by which sediment and organic material gradually replace the water volume of a pond ultimately resulting in the area becoming dry land

**Pool**—an area of deeper, slower-moving water in a stream

**Population**—a group of individuals of the same species occupying a specific area

**Precipitation**—a form of water such as rain, snow or sleet that condenses from the atmosphere and falls to Earth's surface

**Predator**—an animal that lives by capturing and eating other animals

Prey—an animals that is eaten by a predator

**Producer**—an organism that is able to produce its own food from non-living materials, and which serves as a food source for other organisms in a food chain; green plants

Recharge—water that soaks into and refills an aquifer

Reservoir—an artificial lake used to store water

**Riffle**—an area of shallow, faster-flowing water in a stream

Riparian zone—land next to the stream, starting at the top of the bank, with heavy plant cover on either side

**River**—a large stream

Runoff—precipitation not absorbed by soil

Saturated—soaked with moisture; having no pores or spaces not filled with water

**Scale**—any of the small, stiff, flat plates that form the outer body covering of most fish

**Sediment**—silt, sand, rocks and other matter carried and deposited by moving water

Shredder—an aquatic invertebrate such as a stonefly nymph that feeds by cutting and tearing organic matter

Slough—a backwater or secondary channel of a stream

**Sport fisherman**—an angler who catches fish for personal use or recreation, rather than to make a living

**Stream**—a body of flowing water

**Stream bank**—the shoulder-like sides of the stream channel from the water's edge to the higher ground nearby

Streambed—the bottom of the stream channel

**Surface water**—precipitation that runs off the land surface

**Swamp**—a wetland in which trees or woody shrubs predominate

Swim bladder—an air-filled sac near the spinal column in many fishes that helps maintain buoyancy

**Transpiration**—the passage of water through a plant to the atmosphere

**Tributary**—a stream that flows into a larger stream or other body of water

**Trophic level**—a group of organisms that occupy the same position in a food chain; each step of an energy pyramid

**Water cycle**—the natural process of evaporation and condensation, driven by solar energy and gravity, that distributes the earth's water as it evaporates from bodies of water, condenses, precipitates and returns to those bodies of water

**Water pollution**—an excess of natural or man-made substances in a body of water; especially, the contamination of water by substances that are harmful to living things

Water quality—the fitness of a water source for a given use, such as drinking, fishing or swimming

**Watershed**—all the land from which water drains into a specific body of water

Watershed address—the watershed, sub-watershed, and sub-sub-watershed that includes a particular location

**Wetland**—a low-lying area where the soil is saturated with water

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## **Projects, Programs and Web Sites**

Bryant Creek Watershed Project www.watersheds.org

Missouri Stream Team www.mostreamteam.org

Project WET: Curriculum and Activity Guide by The Watercourse and the Council for Environmental Education

Project WILD Aquatic K-12 Curriculum and Activity Guide by Project Wild and the Council for Environmental Education

U.S. Environmental Protection Agency www.epa.gov/safewater/kids/teachers\_4-8.html

U.S. Geological Survey Water Science for Schools ga.water.usgs.gov/edu/



Start a Stream Team at your school!

www.mdc.mo.gov/programs/strteam/